## **O2JSKxx - HUMAN COMPUTER INTERACTION**

## LAB 6 – USABILITY TESTING

This lab bootstraps the work needed for Milestone 4 (M4), by asking you to plan (and then run) your prototype's usability test. As always, the lab should be completed as a group. Milestone 4 needs to be submitted 7 days before the oral exam on the GitHub repository assigned to your group, by following the <u>Markdown template</u> available in the course website.

## PREPARATION

Your group should be now almost ready to evaluate your prototype with real users. In preparation for the actual test, you will develop a **script for the usability test**. As explained during the lectures, your group will be using this script to perform the evaluation (in the next weeks, according to your own free planning and scheduling).

Usability scripts, or protocols, help keep tests consistent across participants and the facilitator. It gives exact, step-by-step instructions on how to evaluate the prototype with a user, typically down to the exact words that the facilitator will say. With the help of the slides about <u>Usability Testing</u> and the <u>sample drafted</u> in class, write a usability testing protocol that covers:

- Preparation and set up.
- Who are the participants and how you plan to recruit them.
- Gaining the informed consent (i.e., a dedicated form).
- Executing the test, identifying who does what, which methodologies you plan to use, which and how many tasks you are going to have (with success criteria), and what measures you will record. One team member will be the facilitator, the others will act as notetakers, but notice that those roles do not have to be fixed.
- Written instructions that you will read to each participant, and any other materials that you plan to use during the session (e.g., questionnaires, de-briefing questions, ...).
- How any observation will be recorded (notes, voice recording, video recording, and/or...).
- Debriefing the participant, i.e., to prepare some questions you would like to ask.

The final script should be around 2-3 pages in PDF (or Markdown) format. Link the document into the M4 template.

## **RUN AND REPORT**

In the coming weeks/month, and before the oral exam, run the usability test with at least *three* different people, in-person or remotely. Before running the test, it is a wise idea to **practice the script** (beta test) with at least a friend of yours (different from the people you will recruit). Try your best to find representative testers whom you would expect to use your app in real life; if you cannot do so, then get as close as possible to approximating your target population.

As said before, one team member will facilitate the test and interact with the participant, while the rest of the team will be in charge of taking notes/photos/screenshots/videos/etc. The facilitator should use the script that you developed above. Unlike the heuristic evaluations, this time your participants will not be writing down the problems they find for you: it is your job to learn what the people testing your prototype are thinking, and what mental models they are forming. Remind that your *goal* here is to find ways to improve your interface.

**Take a photo** or draw a sketch of *each* tester using your prototype. As with the needfinding milestone, these photos with captions should show issues and design opportunities. Contextualize them by capturing the action, e.g., by using "over-the-shoulder" photos to capture the user using your app, and by showing the setting. Look for other breakdowns and pain points in your interface and try to understand what the problems are and how you might fix them.

Immediately after each session, do a **quick debrief** with the participant. After that and separately, do a quick debriefing with your team and write down any reactions or thoughts that came up during the testing session.

After completing the evaluation with all participants, take some time as a team to **reflect on the findings**. Discuss and define some general patterns in people's behavior. When you identify some interesting points, talk deeply about them. Summarize the findings, along with the most significant photos/sketches with captions, in the second part of the M4 template.

Finally, write up a detailed and understandable **list of changes** that you would like to implement as a result of your testing and discussion, with justifications, in the M4 template. The *most significant changes* present in the list should be reflected in the final version of the application that you will present at the exam.